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The **Macdonald** **FARM** *Journal*



OCTOBER 1962

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The Macdonald FARM Journal

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Dr. S. Chopra, B.V.Sc. & A.H., P.G.B.P., M.Sc., and currently working towards Ph.D. in the Department of Agricultural Bacteriology and Animal Science at Macdonald College authors this article of interest to all hog raisers.

OUR COVER

A rosy-cheeked 18 year-old English girl, Heather Bomford, who recently was named National Dairy Queen of England and Wales, arrived in Montreal recently on the start of a trans-Canada tour sponsored by the Dairy Farmers of Canada. The British Dairy Queen and her entourage were greeted by John Dickson, President of Dairy Farmers of Canada, and Mrs. Dickson, and by officials of the Provincial Department of Agriculture.

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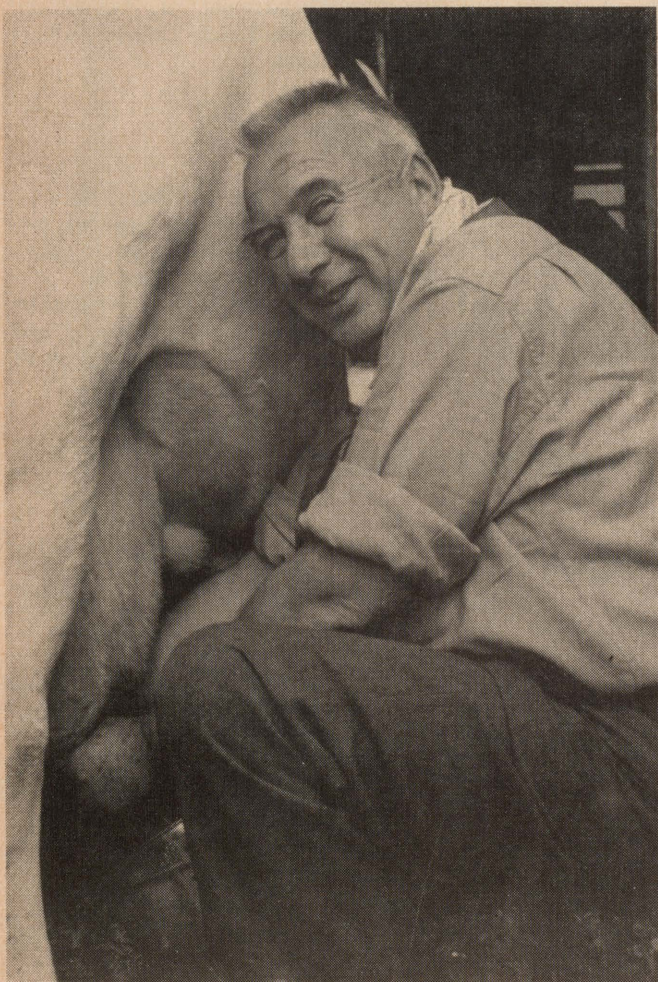
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QUEBEC FARMERS HONORED

Kenneth W. MacLeod, below, owner of Lake Aylmer Farm, was top Quebec amateur farmer with top of 910 points in the 1962 Agricultural Merit Competitions.

Maurice Laliberté, right, scored a total of 905.5 points to capture the title of Commander of the order of Agricultural Merit and a prize of \$500.



THE WINNER OF THE GOLD MEDAL, title of Commander of the Order of Agricultural Merit and prize of \$500, in the professional farmers' division of this year's Provincial Agricultural Merit Competition, is Mr. Maurice Laliberté of Honfleur in the County of Bellechasse. Mr. Laliberté scored 905.5 points out of a possible 1000. Mr. Antonio Sévigny of Princeville in the County of Arthabaska came second with 904 points, thereby winning a prize of \$300.

In the section for amateur farmers, Mr. W. Kenneth MacLeod, the owner of Lake Aylmer Farm at Disraeli in Wolfe County, was first with 910 points. Second place went to "La Ferme Lamennais" operated by the "Révérends Frères de l'Instruction Chrétienne" at Ste-Germaine-du-Lac-Etchemin in the County of Dorchester, which was awarded 900.5 points.

For the purposes of the Agricultural Merit Competitions, the Province of Quebec is divided into five regions, entries being restricted to one of these per year, so that the entire Province is covered every five years. This year, the competition was held in the third region, consisting of the area covered by the electoral districts of Beauce, Bellechasse, Dorchester, Frontenac, Kamouraska, Lévis, L'Islet, Lotbinière, Mégantic, Rivière du Loup, Témiscouata and Montmagny.

Next year, 1963, the contest will be held in the fourth region, comprising the electoral districts of Berthier, Champlain, Gatineau, Hull, Joliette, Labelle, Laviolette, Maskinongé, Montcalm, Montgomery, Papineau, Pontiac, Portneuf, Quebec, St-Maurice, and Trois-Rivières.

Further information about these farming competitions will be found in the **Macdonald Farm Journal** for March 1962, or may be obtained from Mr. A. J. Rioux, Department of Agriculture and Colonization, Quebec City, P.Q.



Fabulous Fan Dancer — The Peacock

by Jack Denton Scott

TROPICAL SUN SLASHING through the dense jungle of central India turned the bird's breast into a shimmer of blue fire. It stood tall as an eagle in a clump of young bamboo 300 yards ahead. This was my first view in the wild of the world's most exotic bird, the peacock. I moved forward to try to capture the sight on color film. Having been told that peacocks are among the wariest of jungle creatures, I made this a slow stalk. As I got closer I could see that the bird was ignoring me, and staring, hypnotized, at something before it — a leopard creeping through the grass. I lowered the camera, unslung my rifle. As I put the rifle to my shoulder the leopard sprang to its feet, its hide fell off and an alarmed voice shouted in Hindi: "Don't fire!" The bird fled, crouching, swift as a snake.

My leopard was a frightened Indian professional fowler who had draped himself in the cat's hide, perfect even to the mounted head. Clad now only in a loin cloth, he held a short bamboo spear in one hand, a net over his shoulder. The peacock, ordinarily clever and shy, a master of stealth, is fascinated by the leopard, will often stand and stare until killed. Aware of this, hunters in some areas don leopard skins to get close enough to net the peacock alive for sale or spear it for supper.

The Far East is native ground for the two true species of peacocks, both related to the pheasant family — the blue-breasted of India and Ceylon and the green of Java and Burma.

The Indian bird, called the "common" peacock, is the one known by us all. Hindus revere and protect this beautiful bird. Domesticated in Judea during the time of Solomon, brought to Greece by Alexander the Great, it gradually spread westward. Even the early Christians engraved the peacock on the tombs of the martyrs in the catacombs of Rome, as a symbol of eternity and immortality.

Everything about this fabled bird is unusual: Currently worshipped by thousands, its colorful feathers are claimed by Indian mendicants to contain magical qualities. It fan dances, and cries like a cat.

The peacock normally has a three-to-five hen harem, but I have seen two old Indian peacocks trailing 92-inch jeweled trains, each with ten obedient mottled-brown, green-necked peafowls in procession. Mating is preceded by the fabled dance, much strutting, the showy tail-spread.

If unhunted or in a Hindu protected area, peahens will lay eggs on jungle-edge or even in a clump of bushes near a village. They are partial to the thick *Ber* bushes where three to six eggs, pale cream or warm buff, are laid in a natural hollow which the peahen sometimes fills with leaves, small sticks and grass. I have found their eggs in a hollow limb of a banyan tree, even in nests on the thatched roofs of huts in jungle villages.

Setting close, the hen hatches the eggs in about 30 days. Young peacocks (peabiddies) start life covered with drab brown down, but only a few hours out of the egg they raise



Residents of Arcadia, a heavily-populated section of southern California regard peacocks as familiar friends. Three pairs, brought to the area in the 1870's, became 2,000.

their tiny tails in a strut. It takes two years for train plumage to develop; the first year the peacock has a buff breast, speckled back, a green neck and his short tail is gray. During the second year his breast turns black, he gets his father's blue neck, his back turns green and gold. The third year brings prussian blue breast: neck and shoulders are shaded in green and purple-blue, running to a deep metallic green on abdomen. His back from shoulders to rump become brilliant bronze-green, each feather black-edged. He also gets his brown tail which often grows to 15 or more inches. Another year brings his weight from 9 to 12 pounds; often he has a five-foot wing-spread.

The train or "nautch" projects beyond the tail from 40 to 54 inches, giving the peacock his magnificent tail-train 55 to 72 inches long. Train feathers, which he carries during a possible 35-year life span, shedding in late summer, growing back by December, are also bronze-green with a copper sheen near the tips, each feather with a distinct eye formed by a deep blue heart-shaped spot ringed with blue-green, golden-bronze, gold and rich brown. Unfurled, this fantastic fan in its spectacular sunburst of color has awed and impressed since the beginning of recorded time. The raised nautch takes the shape of a shield from which a thousand eyes seem to peer. In Sanskrit the bird is called the thousand-eyed creature.

I saw those eyes the first time when a peacock did a fan dance at New York's Bronx Zoo, where I went with a couple of school chums. We had learned that in Roman legend Juno transposed the hundred eyes of Argus, slain by Mercury, to the peacock's tail. Our bird opened his great train by shaking himself until it rose in a multi-colored halo. Before we really had a chance to see it properly he swung around, presenting his backside — a stiff grayish-brown tail and a puff of black feathers, giving the impression that he was wearing winter underwear. But finally he

decided to let us see him. The great fan with its green, gold, bronze eyes rose and trembled, shaking us up so that no one said a word for ten minutes — a rare thing for boys our age.

The caution that old Indian peacock displayed in delaying our seeing his fan was a carry-over from the wild. From the time jungle peacocks are large enough to unfurl their tails, they let the drab, mottled-brown hens precede them into the open. If it is safe they then show their gorgeous selves. At night they roost on high boughs of tall trees, again the hen leading the way.

I have heard them calling at intervals all night. One cry is exactly like a child's plea for "help!" But the one most often heard resembles the cry of an old tomcat on a backyard fence, a cross between a miaow and the clear sound of a trumpet, coming out a surprisingly loud *phi-ao-phi-ao*. They also utter a shrill *ka-oan-ka-oan* alarm call.

Naturalists call them the most alert of jungle creatures. One, Stuart Baker, says that they are "as sinuous as a snake, as steadily as a cat and as wary as an old bull bison in watching for foes."

I spent nearly two weeks last year in India in a camera "hide," perfectly camouflaged, trying to film the impressive love-dance that precedes mating. Moving a few yards every day, I managed to get within 200 yards of a peacock family. Then the suspicious guardian hens took off, rocketing like pheasants, rapidly overtaken by their frightened lord, his train streaming like a tail of flame. I never got the picture.

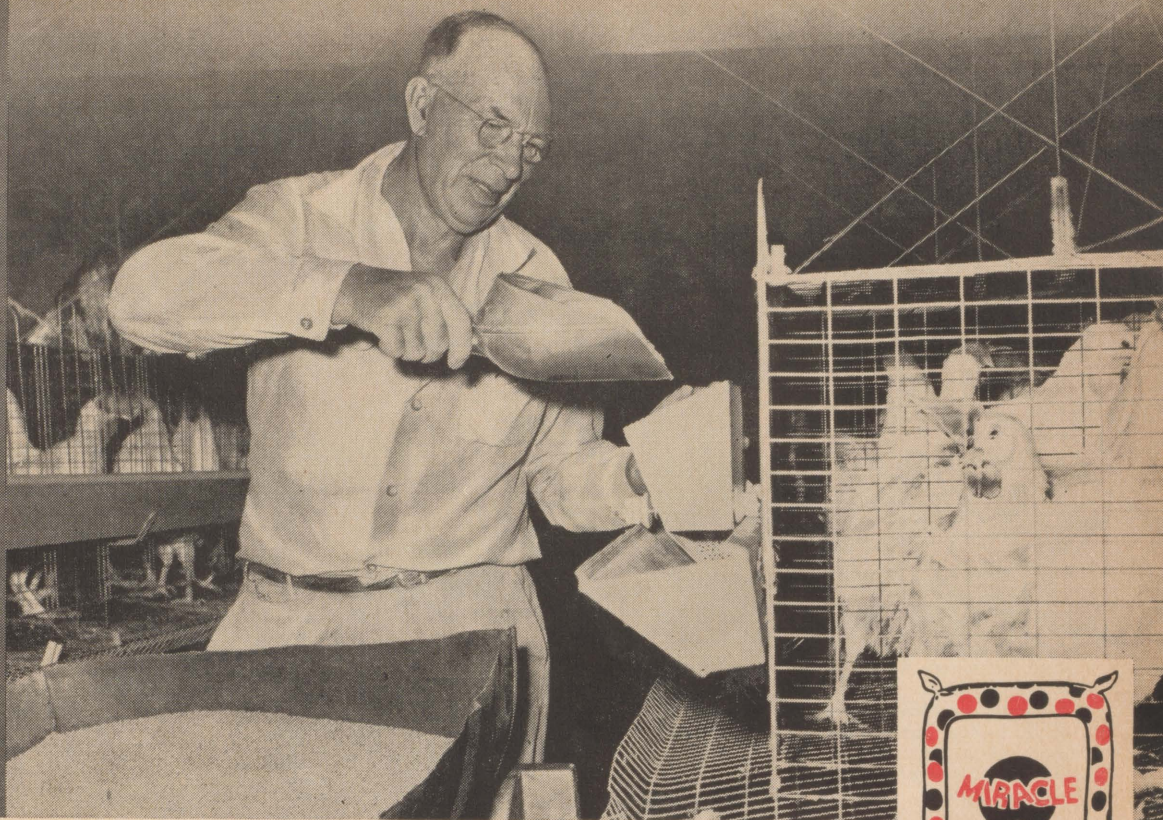
But I did have a box seat at a show even more unusual than the mating dance, one day while I was sitting in a tree waiting for a tiger. The tiger didn't come that day, but I never noticed. I sat enthralled, with a dozen young peacocks performing under my tree. There wasn't a female in sight, thus exploding the theory that they strut only when hens are around. They were dancing with each other, strutting and bowing, paired off, first a forward dance, then an equally graceful backward movement, almost a rhumba, the jeweled fans quivering, the sun striking fantastic lights, not a noise coming from them. Then, suddenly, as if by silent signal, the dance stopped, the ocellated nautches were folded and the peacocks quietly made their way single file through the jungle.

Like the turkey, the peacock struts and quivers his fan before his harem of three to six hens. But the hens don't pay much attention. Of the 50 times I have seen wild peacocks displaying their glory before females, only twice did the hens stop pecking or lift their heads to see their master burst his color for their appreciation.

Jungle legends has it that peacocks and snakes are mortal enemies. In areas where they are protected or revered, landowners often entice the peacocks into their gardens to discourage snakes, even though the birds usually end up eating the better grain and fruit.

Successful
 Breeders
 across
 Canada
 choose
MIRACLE

BRITISH COLUMBIA:



"Joseph Baker, Metchosin Road, B.C., is a leader in egg production and flock management efficiency," says a B.C. Farm Management official.

figures on his 3,700 bird caged flock are — Average lay over a 12 month period — 70% • Average Feed cost per dozen eggs — 15.4 cents Pounds of feed to dozen eggs — 4.6 lbs. • Cost of replacement chick and feed to 22 weeks — \$1.35 • Percentage of Grade A eggs over 12 month period — 94.5% • Feed fed exclusively — "Miracle."



Naturalist William Beebe in a 17-month quest in the Far East for exotic pheasants had his most difficult moments trying to approach peacocks. In the jungles of Ceylon he finally got close enough to see a peacock playing with a deadly Russell's viper. The bird circled and pursued, keeping at a distance, but tempting the viper to strike again and again. "The bird didn't attempt to kill the snake, just teased it," said Beebe. "Then, tiring of the game, he ran down a slope and flew away, the full light of this train a wonderful colored tapestry."

Wild and shy though he is, the peacock takes captivity calmly, is found worldwide on private estates and in zoos and aviaries. There is a community of contented peacocks in Arcadia, a heavily-populated section of southern California. Brought there by Elias Baldwin in the 1870's, three pairs became 2000. The great Baldwin estate was finally broken up, but the birds stayed, taking over the countryside. Finally 127 acres of the Baldwin grounds were established as the Los Angeles State and County Arboretum, a botanical garden and sanctuary for the peacocks. They don't seem to appreciate it. They spend their time on the residents' lawns and fences. Few people object. After all, how many of us are lucky enough to have peacocks in our gardens?

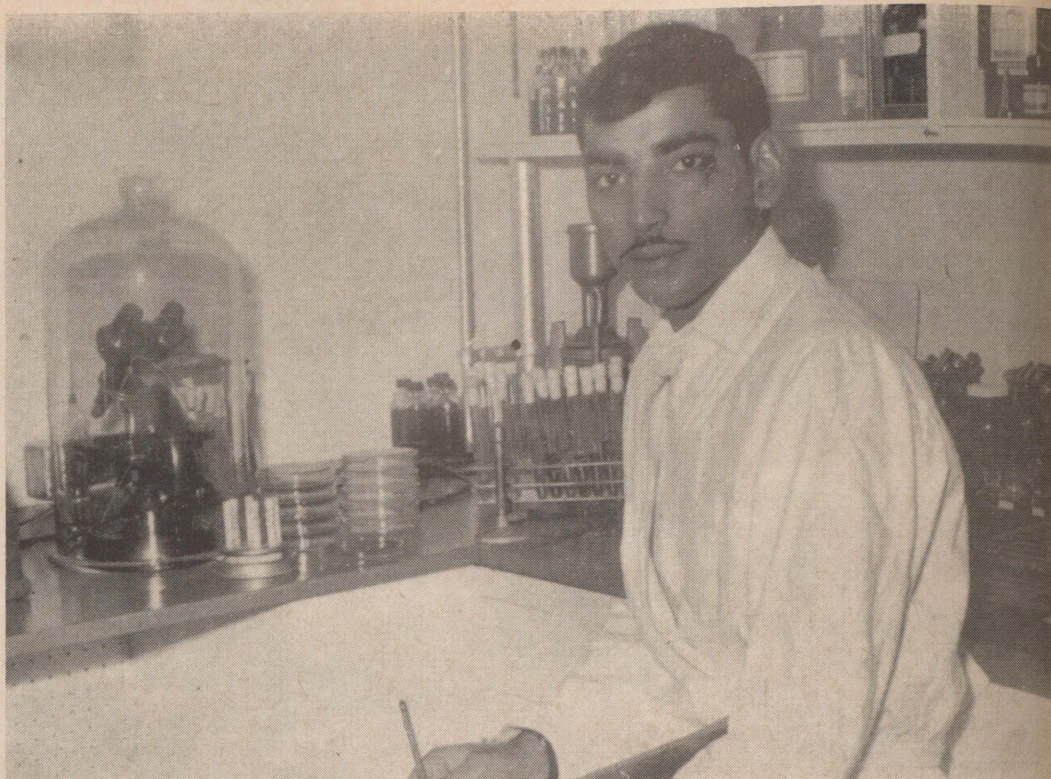
One resident put it this way: "Every night this peacock calls his harem and they roost

in our tree. In the morning as we have breakfast he is still there, his tail hanging like a bouquet of flowers. It's a thrill I wouldn't trade."

Most tame peacocks seem to like people, or at least put up with them. There are many odd characters among domesticated peacocks. One named Sir Roger de Coverley on Caroline Sherman's Virginia farm delighted in terrifying horses with his fan dance. Another, Lucifer, once the peacock pride of the Bronx Zoo, fell for a black turtle, Geraldine. Zoo keepers said that as soon as he saw the turtle he fanned his tail and walked out of the peacock section. For three years he lived with her in the turtle yard. He had to fight it out on several occasions with another peacock, Oswald, who came over to discover what he saw in Geraldine. And an Englishwoman had one named Aquila that she taught to erect his fan on command. He would also eat from her hand and tap on the dining room window when they were late with his food.

Generally, though, peacocks in captivity are more ornament than pet, keeping their distance and remaining tame so long as they are fed at regular times and unmolested. People who keep peacocks claim that once you've owned them you are hooked forever. Their beauty and flaming color are such that you feel something vital has gone from your life if the rainbow bird isn't around.

Dr. S. Chopra, B.V.Sc. & A.H. (Punjab); P.G.B.P. (Indian Veterinary Research Institute); M.Sc. (McGill); Presently working towards Ph.D. in the Department of Agricultural Bacteriology and Animal Science at Macdonald College.



BABY PIG SCOURS

by Dr. S. Chopra, B.V.Ss. & A.H., P.G.B.P., M.Sc.
Department of Animal Science, Macdonald College.

MODERN PIG FARMING is changing as fast as any other industry. The hog raiser today, searches for means to produce larger litters and at more frequent intervals and to achieve this aim breeds selectively and weans the young ones at 2-3 weeks of age instead of the conventional weaning age of 8 weeks. This type of intensive breeding creates the hazard of deficiencies both in the dams and the piglets and consequently, the nutritionist has joined hands with the breeder. He has produced enriched feeds which not only are adequate in the required ingredients but are more efficient in enabling the pigs to achieve market weights in shorter periods of time.

Unfortunately, the union of the animal breeder and animal nutritionist has not been able to eliminate the incidence of diseases and mortality of the young ones. This is where a third man, the veterinary bacteriologist, is essential on the team. There are a great number of diseases of young pigs but ailments of the digestive tract are probably the most economically damaging. Almost all maladies of the digestive tract of baby pigs have "scours" as a common symptom.

What are "Scours"?

Scour is a term used as a synonym for diarrhea. A literal meaning of scours as given in the dictionary is "to clean something with water or some other liquid." Nature has provided the animal with the ability to flush

or scour its system of any irritant that may have gained entry into its digestive tract. One way the animal does this is by drinking extra amounts of water. The word scour is therefore quite appropriate even in technical terms.

Causes of "Scours."

Any substance that is irritant can cause an inflammation of the delicate tissues of the baby pigs' intestine and consequently result in the appearance of scours. The irritant may be: —

- Chemical poison.
- Bacteria — small microorganisms that can only be seen under the microscope.
- Viruses — ultra small microorganisms that cannot be seen even under the microscope.

The intestine of the pig is therefore subject to a widely differing range of insults both infectious and non-infectious. Scours due to chemical poisoning is not of great economic concern to the average farmer because they occur only on rare occasions. Outbreaks of highly contagious scours like Hog Cholera may cause heavy economic losses both on the premises of the outbreak and in the surrounding area but means are available for their prevention or early recognition. A number of other infectious bacteria and viruses are known to cause scours of young and old pigs but it is doubtful whether such causes, even combined together, account for the majority of the troublesome enteritis that is seen

today. It is the diarrheas of a non-specific and insidious nature rather than those caused by dramatic infectious microorganisms that bring about the heaviest economic losses.

This simple type of scours occurs in young pigs at 2 to 3 weeks of age. It may start solely due to a dietary cause when the pigs are early weaned. Simply removing the feed for some time may check the symptoms but may not prevent further trouble later on. Sometimes simple scours develop into an acute disease characterized by a yellowish white diarrhea. The disease, under these circumstances, is infectious and most often spreads through the entire litter. Less frequently it spreads from litter to litter. In addition to the direct loss due to deaths, many young ones are left severely stunted and exposed to attacks of other infectious diseases.

In 1960 Macdonald College undertook the problem of baby pig enteritis as one of the important research projects and since then research has been continued in this field with the joint efforts of the Department of Agricultural Bacteriology and the Department of Animal Science. In the following few paragraphs a general description of the results of the work done so far and the projected line of research for the future is given.

THE INTESTINAL TRACT of all healthy animals inhabit a wide variety of bacteria, most of which are harmless. Among these harmless bacteria exist a few harmful bacteria which are opportunists. Our experiments have indicated that whenever abrupt changes are made in the diets and husbandry of the young pigs, for example at the time of early weaning, these opportunist bacteria flare up very rapidly and out-number their harmless counterparts. During this process the young pigs show symptoms of scours. The bacteria which increase in number are named *Escherichia coli*. There are many strains of *Escherichia coli* bacteria, but only some of these are encountered during the baby pig scours. The separation and differentiation of *Escherichia coli* bacteria that are potentially harmful from the harmless ones has been, and continues to be, a difficult and uncertain problem. The laboratory examinations conducted on these bacteria have revealed that many of them are resistant to the action of antibiotics.

In spite of the fact that we have shown the association of some strains of *Escherichia coli* bacteria with enteritis of early weaned pigs, we do not know at the present moment whether or not these supposedly disease producing bacteria would cause scours if they were intentionally fed to young animals. Before we can learn this, we have to cross a big hurdle, that is, obtain pigs whose intestines are free from these bacteria.

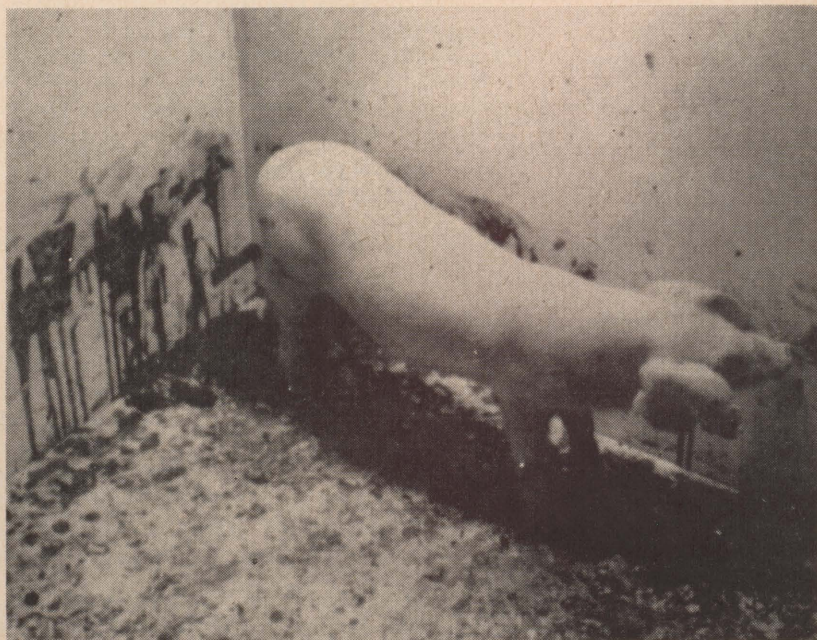
What is the source of these bacteria? Immediately after their birth, piglets are exposed to an environment which abounds in all kinds of microorganisms. They become infected with these bacteria from their mother's excreta and the polluted air. The young ones can even pick up infection from the mother's feces while they are being born.

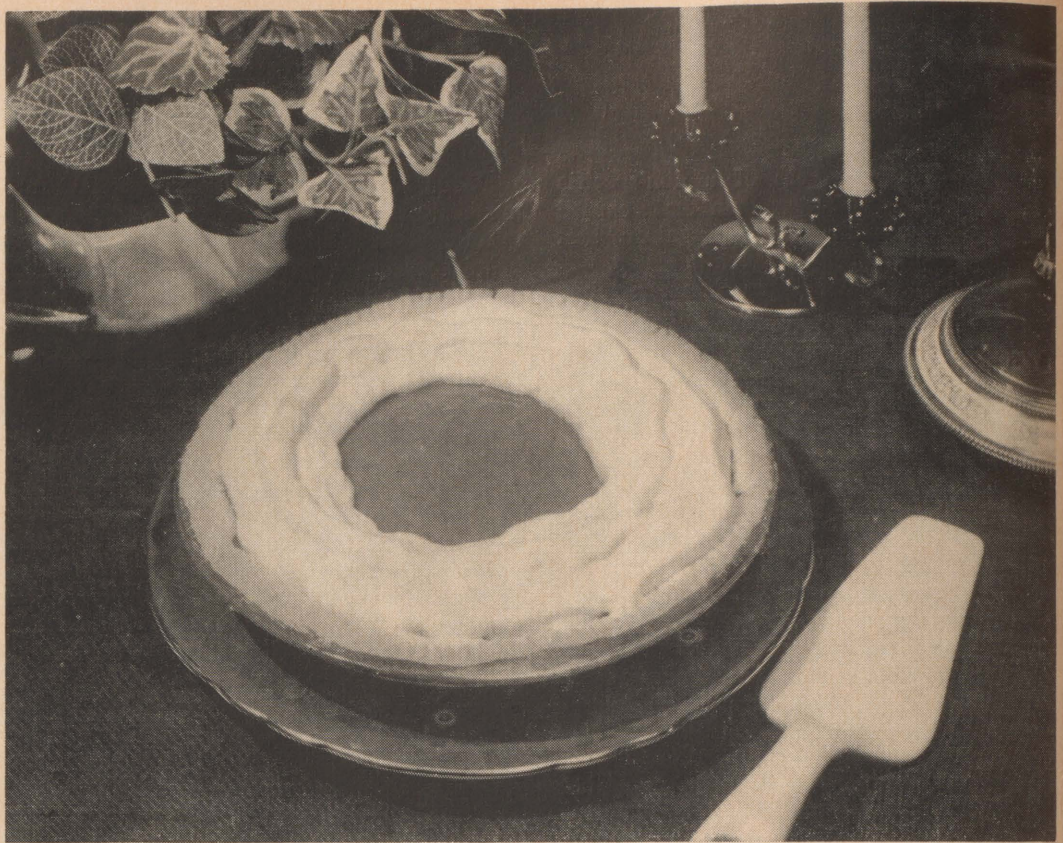
Effective means of obtaining pigs at birth which are free from bacteria have been developed. Bacteria free pigs are obtained from their dams 2-4 days before their anticipated birth by means of a caesarian operation on pregnant sows. By this method, the chances of the pigs becoming infected while passing through the birth canal or from feces are eliminated. The piglets are transported in sterile carrying boxes to the isolation units housed in clean, previously disinfected rooms.

Major emphasis is presently being directed toward the establishment of a "pilot scale" disease free unit at Macdonald College. The piglets will be obtained by caesarian operation as described above. All contacts between the mother and the young ones will be avoided, so much so that they will even be deprived of the mother's first milk (colostrum). They will be fed enriched milk diets which have been previously sterilized. The piglets will be housed in specially constructed incubators supplied with heated filtered air.

Piglets obtained and reared under these conditions will then be available to study the disease producing effects of experimental infection with specific strains of *Escherichia coli* bacteria previously isolated from scouring pigs.

An experimental piglet with scours at Macdonald College's Department of Animal Science.





Hot Drinks, Cookies and Pies for Those Cool Fall Evenings

WHEN MOTHER NATURE once more goes into her wide-screen, 3-D technicolor act, things start to happen in Canadian homes. Things like pumpkin pies, golden and succulent. And hot drinks and cookies in front of an open fireplace. It's all as much a part of fall as fur coats and football games; Indian Summer and the smell of burning leaves in the air. It's a time of nostalgia, and a time

of preparation. Summer is breathing its last, and we know winter can't be far off. With the nip of frost in the air and appetites made healthy by cool fresh air, home and the kitchen come into their own. The call goes round for hot food, hot drinks at the time of year many Canadians consider best of all. It's early autumn.

AUTUMN PIE

Temp: 425° — 10 min.
350° — 30 min.

Time: 40 minutes

- 1½ cups canned or cooked pumpkin
- Add:** 2 beaten eggs
- ¼ cup brown sugar
- ¼ cup maple syrup
- Mix:** 1 tablespoon flour
- ¼ teaspoon salt
- ¼ teaspoon ginger
- ½ teaspoon mace
- ¼ teaspoon nutmeg
- Add to pumpkin mixture**
- Add:** 1 tablespoon melted butter
- 1 cup evaporated milk

Blend and pour into sesame pie crust shell. Bake. Cool, brush filling with liquid honey or top with whipped cream sweetened with honey.

SESAME PIE CRUST

Pastry for one 9-inch pie shell
1/4 cup sesame seed

Add sesame seed to pastry when mixing. Roll out and line pie plate. Adds a nut-like flavor to pastry that is extra good with pumpkin, mince, cocoanut cream, or pecan pie.

HOT SPICED GRAPE JUICE

6 cups homemade or bottled grape juice
3/4 teaspoon cinnamon
3/4 teaspoon allspice or nutmeg
1/4 teaspoon cloves

Combine ingredients, simmer 5 minutes. Strain through cheesecloth. Serve hot. Yield, 6-8 oz. glasses. Served with Spiced Doughnuts or Autumn Pie. Scrumptious!

HOT MULLED WINE

For the grown-ups on any cool Fall evening

1 cup sugar
3 cups boiling water
1/2 lemon rind, thinly sliced
18 whole cloves
6 inches stick cinnamon
2 bottles of Canadian Claret

Place ingredients excepting wine in saucepan. Bring to boil and simmer 5 minutes. Strain. Add wine, reheat to simmer point only (do not boil). Serve hot. Yield, 10 to 12 servings.

SESAME-CINNAMON COOKIES

Temp: 400°F.

Time: 8 minutes

Cream together:

1 cup soft shortening
1 1/2 cups granulated sugar

Add: 2 unbeaten eggs

Sift together and add:

2 3/4 cups flour
2 teaspoons cream of tartar
1 teaspoon soda
1/2 teaspoon salt

Add: 1 teaspoon vanilla

Chill dough, roll in walnut size balls. Roll balls in 1/2 cup sesame seed then in 2 teaspoons cinnamon and 2 tablespoons granulated sugar mixed. Place about 2 inches apart on ungreased cookie sheet. Bake until lightly browned but still soft. Yield — 6 dozen cookies.

SESAME COOKIES

Temp: 375°F.

Time: 4 - 5 minutes

Cream together:

3/4 cup brown sugar
1 cup soft butter or margarine

Add: 1 egg

Sift together and add:

1 3/4 cups sifted pastry flour
3/4 teaspoon mace
1/2 teaspoon cream of tartar
1/2 teaspoon baking soda

Add: 1 teaspoon vanilla

Chill thoroughly overnight if possible, roll dough into walnut size balls. Roll in 1/2 cup sesame seed. Bake 2 inches apart on ungreased cookie sheet. Yield — 4 dozen cookies.

COLLEGE NEWS

A new Department of Soil Science was established at Macdonald College on September 1st, 1962, to carry on teaching and research in different phases of soil science.

The Department will offer a Soil Science undergraduate option which replaces the present specialization in soil and plant chemistry in the Agricultural Chemistry option. This option will train undergraduates in their 3rd and 4th years for research, extension and commercial positions involving soils. In addition to the background courses in chemistry, physics, mathematics and biology, soil science specialists will take courses in chemical and physical properties of soils, soil fertility and management, soil microbiology and soil survey and classification.

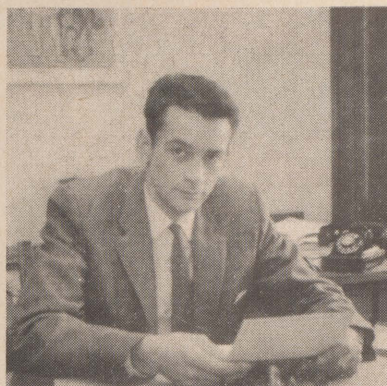
Research studies will be an important part of the department's work. Investigations will be carried out both on Quebec soils and the problems in their management, and on fundamental studies to gain a better understanding of soils wherever they are found. Graduate training is an integral part of the research programme. This year 10 graduate students are working for advanced degrees in soil science and 14 students are doing work which involves soils investigations.

Research studies at present include:

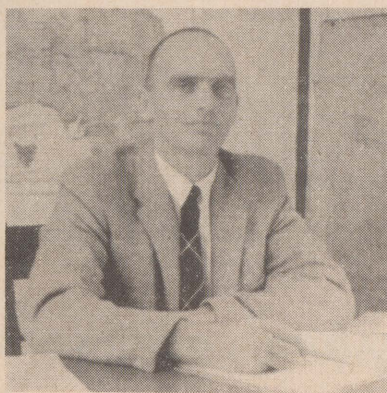
1. Chemistry of sulphur and ammonia in soils related to their availability to plants.
2. Movement of water in clay soils in relation to drainage of heavy-textured soils.
3. Forces involved in retention of water by clays.
4. Physical and chemical studies of the marine deposited clays of the St. Lawrence Lowlands.
5. Use of Tracer p^{32} , K^{42} and N^{15} in measuring the availability of phosphate, potassium and nitrogen in soils to crop plants.
6. Uptake of anions such as sulphate and nitrate as influenced by negative charge on root surfaces.

In addition, field experiments in soil fertility are being carried out in co-operation with the Department of Agronomy and studies of engineering properties of clays in co-operation with the Department of Civil Engineering at McGill University. Further research studies are planned on fertilization of forest trees and the properties of peat and muck soils in Quebec.

Soil Science, as a separate discipline, has had the relatively short life



DR. B. P. WARKENTIN



DR. A. F. MACKENZIE

of fifty years. At Macdonald College it has been taught as part of Agricultural Chemistry under the leadership of Dr. W. A. DeLong, who retired last session. His work, nationally recognized, has provided a solid foundation for soil science. The new Department has been established to give formal support to the work in soil chemistry, plant nutrition and the genesis of soils that Dr. DeLong pioneered, and to provide administrative scope for its expansion into the other fields of soil physics and soil classification.

The present emphasis on soil productivity and land use resulting from the Federal and Provincial programmes under the Agricultural Rehabilitation and Development Act makes our formal recognition of the importance of the discipline at this time very appropriate.

Dr. B. P. Warkentin, previously with the Department of Agricultural Physics, has been appointed Associate Professor and Chairman of the new Department, and Dr. A. F. MacKenzie of the Department of Agricultural Chemistry as Assistant Professor of Soil Science.

Dr. Warkentin joined the staff at Macdonald College in 1957, teaching mathematics and soil physics, and carrying on research in physical properties

of soils. He graduated in Agriculture, majoring in Soil Science, from the University of British Columbia with first class honours. He did graduate work in soil fertility at Washington State University, and in soil physics and chemistry at Cornell University where he received his Ph.D. degree in 1956 for a thesis on the forces involved in swelling of clays in water. The following year he was at the University of Oxford on a National Research Council Overseas Postdoctorate Fellowship, continuing work on swelling of clays. Dr. Warkentin returned to England for 3½ months this summer on a British Council Bursary to further some of his research work. He is the author of fifteen research papers in national and international journals, has served as science editor for the Canadian Journal of Soil Science, and is currently a member of the Committee on Clay Minerals of the National Academy of Sciences — National Research Council (U.S.A.).

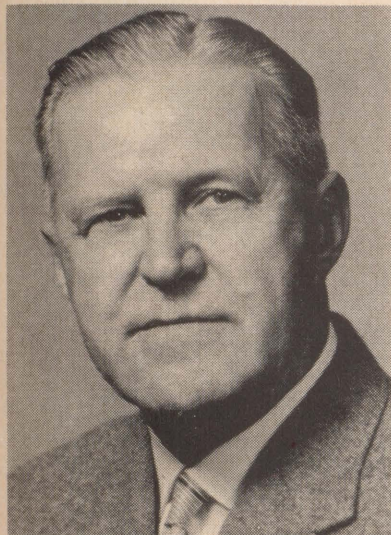
In addition to his participation in undergraduate teaching at Macdonald College, he has continued his research work on water in clay soils and on engineering properties of clays, and has begun studies on using tracer fertilizers to measure the availability of phosphate and potash in Quebec soils. His training, research work, and broad interest in both agricultural and engineering applications of soils have established him as one of Canada's leading men in the field of physical and physical chemical properties of soils.

Dr. MacKenzie graduated with distinction in Soil Science from the University of Saskatchewan. He remained there for his first graduate degree, awarded for a thesis on chemistry of phosphate fertilizer in soil. He received his Ph.D. degree from Cornell University in 1959 for his work on genesis of organic soils. From 1959 to 1962 he was Asst. Professor of Soils at the Ontario Agricultural College, where he taught courses in soil science and carried out research work on reactions of applied phosphate fertilizer with soils, availability of phosphate to plants, and mineralogy of Ontario soils. In 1962 he joined the staff at Macdonald College. With his excellent background in chemistry and in soil science, he will be specializing in problems of soil chemistry and soil fertility.

The new Department begins with an active programme in soil science, and with two of Canada's best young soil scientists.

Compiled by T. Pickup of the Information and Research Service, Quebec Department of Agriculture.

PROMINENT AGRONOME RETIRES



STEPHEN BOILY

One of Quebec's veteran agronomes, Stephen Boily, retired recently, after 41 years' service to agriculture in his native province and in Europe. He interrupted his studies at Macdonald College to serve overseas in World War I with the Sherbrooke Fusiliers.

Receiving his B.S.A. degree at McGill in 1922 he joined the Federal Department of Agriculture, and for 17 years served at Sherbrooke as chief of livestock promotion for Quebec. During his service there he organized the Junior Livestock Clubs for Quebec, a movement which has grown immensely in recent years.

In 1943 Mr. Boily became Superintendent of the Veteran's Land Act in Quebec, and served in this field for five years, when he joined the Department of Citizenship and Immigration as agricultural immigrant placement officer. In this capacity he toured Europe on immigration business, at the same time acting as Agricultural Information Agent in the Canadian Embassy at Paris.

His most recent honor came at the Quebec Exposition when he was made an Honorary Commander of Agricultural Merit. Mr. Boily has retired to live on his farm at Vaudreuil, but he has been much in demand as an expert judge of livestock at several local and district exhibitions.

THE GRADING OF POTATOES

Potatoes are one of the chief crops in the Province of Quebec. It is therefore important that special attention be paid to them. According to the provisions of the Agricultural Products Act, it is forbidden to hold or ship for selling, to place on sale or to sell potatoes which are not in conformity with the conditions of quality, grading, quantity, packaging and labelling set forth in the Act.

Mr. Fernand Laliberté of the Quebec Department of Agriculture and Colonization reminds growers that the grading of potatoes which are to be disposed of commercially is compulsory and that it should be carried out according to the grades stipulated in the Agricultural Products Act of the Province of Quebec, namely: Grades No. 1 and No. 2 and, in addition, No. 1 Large and No. 1 Small. The requirements for these grades differ in a number of respects, of course, but principally with respect to size. For instance, to qualify for grade No. 1, potatoes must not be less than 2" in diameter and, in any one lot, at least 75% of them (by weight) must be $2\frac{1}{4}$ " or more in diameter. For grade No. 2, the diameter of the potatoes must be not less than $1\frac{3}{4}$ ", and at least 75% by weight of the potatoes in any lot must be 2" or more in diameter. In the case of Canada No. 1 Small, the diameter must be not less than $1\frac{1}{2}$ " and not more than $2\frac{1}{4}$ ". For Canada No. 1 Large, the minimum size of the potatoes must be 10 ounces.

It is clear that, if our potatoes are to compete with those produced elsewhere, they must be graded — and graded well. The practice of grading is based on a justifiable need; the need to prevent fraud, imposture, and false representation. A uniform product which is well graded, offered in clean containers, and properly labelled is as good as three quarters sold.

Buyers who are supplied with the correct quantity of well-graded potatoes will be satisfied with what they have bought and may renew their order several times over for the same product.

Let us remember to grade our potatoes. Grading is one of the principal factors in success.

FERTILIZE PASTURES IN THE FALL

Mr. Louis Rousseau of the Quebec Department of Agriculture and Colonization strongly advises farmers to treat their pastures with fertilizers in the fall. This practice is to their advantage, for a number of reasons.

The soil is the cheapest and safest place to store fertilizer. The nutrient elements contained in fertilizers which are spread on the land in the fall become more thoroughly incorporated with the soil, and are available to the plants earlier in the following spring: hence the animals can be put out to graze sooner and the grazing season will be longer.

It is recommended that 250 to 300 pounds to the acre of 0-20-20 or 2-10-20 be applied in the fall, followed by 150 lbs to the acre of ammonium nitrate the next spring. The application of ammonium nitrate in the spring will result in grass of better quality and allow later grazing in the fall. Nevertheless, improved pastures should be closed to livestock for about a month during the latter part of summer and the beginning of autumn.

The fertilization of pastures in the fall has many other advantages, for example:

- Generally speaking, most farmers have more time to spread commercial fertilizers at this time of the year;
- The ground is firmer and there is less danger of causing excessive packing of the soil. In spring, on the other hand, it is often difficult or impossible to take heavy machinery on the land;
- Worthwhile discounts on fertilizer are offered in the fall, and spreading in bulk can be carried out more easily.
- The dairy farmer who looks after his pastures doesn't need to worry about the quality of the milk produced by his cows.

This page supplied in the interests of the Family Farm by the Quebec Department of Agriculture and Colonization.

QUEBEC APPLE GROWERS GAIN INTERNATIONAL MARKETS

Apples have been a success beyond all expectations this year. In fact, it is a first-rate crop, of excellent vintage. The fruit is crispy, juicy and delicious, and they smell like cider. The rich colouring of Quebec McIntosh apples has no equal, a treat for consumers, in Canada and abroad.

The Quebec apple already enjoys an excellent reputation in Great Britain and other countries. But the Quebec Apple Growers' Board — a legal and independent organization — has decided to obtain a larger share of the international market. To this end, it has adopted a regulation relative to the export of Quebec apples outside the North-American continent, and has appointed selling agents.

No person, cooperative or corporation can sell, or offer for sale, Quebec apples for export outside the North American continent except through one of the selling agents appointed for this purpose by the Apple Growers' Board.

All apples thus exported must previously be classified by the Federal Department of Agriculture. The only apples that can be exported by selling agents are those classified as "fancy" and "extra-fancy".

Apples must be selected in such a way that each box will contain 140, 160, 180, or 200 apples.

Should an agent or agents wish to export apples, the variety, size or packing of which is not provided for in the present regulation, he must previously obtain the Apple Growers Board's authorization.

All apple growers bound by a joint plan, who sell apples outside the North American continent, will have to pay a maximum contribution of five cents (\$0.05) per box of apples to the Apple Growers' Board to defray their administrative cost.

More over, the Apple Growers' Board has fixed the price which selling agents will have to pay to apple growers, that is \$3.60 per box, F.O.B. Montreal for the McIntosh variety, less the broker's fees.

In years to come it would be possible to export on these markets from 200,000 to 500,000 bushels of Quebec apples.

Here's more proof that Quebec farmers who produce a good quality crop and know how to submit themselves to a discipline in selling it, can look forward with confidence to gaining international markets.

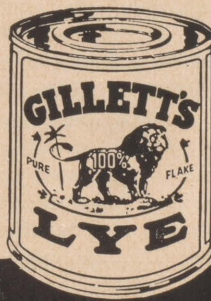
"Gillett's does an excellent job"



Mr. Hummer Bartlett, Owner and Operator,
B-Say-Tah Dairy, Fort Qu'Appelle, Sask.

B-Say-Tah Dairy processes approximately 350 gallons of milk daily. Naturally, strict cleanliness is the rule here. And Mr. Hummer Bartlett owner and operator, uses the widely recommended Lye Method for effectively cleaning and sanitizing. Gillett's Lye, plus hot water, is used in cleaning the milkers. Also, the rubber portions of the dairy equipment are kept in a lye solution which prevents scum. "Gillett's Lye does an excellent job," says Mr. Bartlett.

FREE! Sixty-page booklet prepared by an eminent Canadian Bacteriologist. Tells you how to effectively clean and disinfect at low cost. Covers dairy herd, stables, milking machines, utensils. For a free copy, write: Standard Brands Limited, 550 Sherbrooke St. W., Montreal.



IN REGULAR SIZE AND
MONEY-SAVING 5 LB. CANS.

The Harvesting and Storage of Swede Turnips

Swede turnips intended for keeping are generally harvested during the second half of October, preferably in dry and sunny weather so that the soil does not cling to the roots. They are usually lifted from the earth by hand: the tops are first cut off to within $\frac{1}{4}$ " to $\frac{1}{2}$ " of the neck and then the turnips are pulled up. While pulling them, it is a good idea to separate those fit for table consumption from the ones which are to be fed to livestock, by setting down the one kind on one side of the row and the other on the other side. This will save an extra handling. If, however, you still have to sort them again before storing, collect and transport them carefully to the cellar or to some other cool place first. Only swede turnips which are healthy and free from disease and injury should be stored.

Sample the crop at various places in the field by slicing one or two turnips to see if there are any traces of brown-heart due to lack of boron. By doing so, you will avoid possible disappointment next spring, since this deficiency disease is aggravated during storage.

Before the turnips are put inside, the root-cellar should be well cleaned,

and also well ventilated to cool it as much as possible — ideally between 32 and 35°F. Swede turnips are living vegetables and are sure to cause the temperature of the storage to rise when they are put into it. The grower should therefore watch and control the ventilation and humidity during the first few days (or even the first few weeks) as this is the most difficult period of storage, owing to the constantly changing weather conditions. If the outdoor temperature is higher than that required in the cellar, close all the openings; but if the outside temperature is lower, open them. As a rule, it is necessary at first to close them during the day and open them at night in order to maintain the cellar at a temperature of 33°F and a relative humidity of 90-95%.

Swedes will keep for several months in storage if the temperature is carefully regulated from the beginning of November to the end of December. During the winter months, the outside temperature is more even and it should then be easier to maintain conditions in the cellar within suitable limits by increasing or decreasing the ventilation, in keeping with the humidity of the storage.

KNOW YOUR MUSHROOMS

To thousands of Canadians, mushrooms add an epicurean touch to a meal but, much as they find this food titillating to the palate, the majority of those who enjoy mushrooms shy away from gathering wild forms. The reason is that mushroom lovers can't tell the edible ones from the poisonous ones — often called toadstools.

The Canada Department of Agriculture has available for distribution a very fine, illustrated bulletin on mushrooms which is available upon request from the Information of the Canada Department of Agriculture at Ottawa.

There are a succession of mushroom species that may be gathered throughout the year, with the earliest kinds being found during May, and others appearing during summer and fall, although fall is the season of greatest abundance. Consequently, mushroom enthusiasts should find the illustrated bulletin of particular interest, and of value, in assisting them to determine which species they may eat safely, and which they should leave strictly alone.

This page supplied in the interests of the Family Farm by the Quebec Department of Agriculture and Colonization.

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County Province

Production of Sugar Beets in Quebec

This page supplied in the interests of the Family Farm by the Quebec Department of Agriculture and Colonization.



Mr. A. Lamarque (83-years-of-age) proudly displays one of his crop of sugar beets at St-Remi, Napierville.

The following information, issued by the refinery at St-Hilaire, will be of interest to those who, favourably situated, may be thinking of growing sugar beets.

Year	Number of contracts	Acres under contract	Acres harvested	Average yield tons per acre	Gross revenue per acre	Value of crop
1955	1,425	6,958	6,037	12.73	\$165.45	\$ 998,931.
1956	1,587	8,396	5,671	9.67	145.10	822,854.
1957	1,151	6,271	5,889	12.98	181.69	993,566.
1958	1,077	6,482	5,954	10.92	154.23.	917,960.
1959	842	5,065	4,504	15.01	212.12.	955,043..
1960	898	5,673	5,423	15.25	220.67.	1,196,864..
1961	1,282	8,770	7,896	14.35	186.55..	1,473,444..
1962	1,500	12,250				

(figures not yet available)

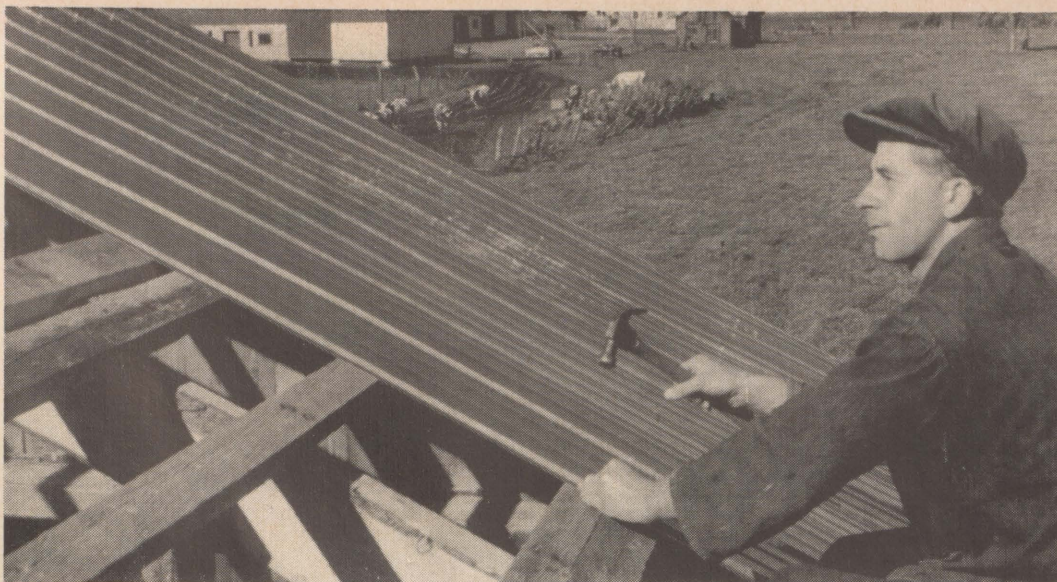
. Includes subsidies of \$1.12, \$1.13, and \$1.47 per ton paid by the Canadian Government.

.. Does not include subsidy, which will be paid later.

Names and addresses of fieldmen at the service of growers

Name	Office	Telephone	Territory
Bruno Bellemare, agronome	St-Hyacinthe	PR. 4-5883	County of St-Hyacinthe
Geo. E. Milette, agronome	St-Hyacinthe	PR. 3-1108	County of Bagot, Yamaska
Jean-Paul Houle, agronome	Beloeil	FO. 7-5171	County of Verchères, Chambly
Gilles Rochon, agronome	St-Jacques	839-2146	County of Montcalm, Berthier, Joliette, L'Assomption
Jean-Guy Cyr, agronome	St-Rémi	454-9762	County of Napierville, Château-guay, Laprairie
Maurice Auclair, Refinery		FO. 7-3324	County of Rouville

Mr. Maurice Fernet building a machinery shed on the family farm at Ile-du-Pads, Berthier County, Que.



Preventative Maintenance

AT THE VERY BEGINNING of October in the province of Quebec, the vivid colouring of the leaves in the forests and woodlands warns us that summer is over, autumn is upon us and the first scowls of winter are just round the corner; and so we think naturally of taking refuge from the coming storms in some shelter which will be at least comfortable.

But the wise farmer, besides looking to the comfort of his family and his animals at this time of year, will also think about protecting his equipment. For, in view of the large amount of capital which he must invest in farm machinery in order to keep pace with the increasing mechanization of agriculture, the modern farmer is obliged to give close attention to the proper care of his machines so as to ensure their efficient operation over a number of years. For this reason an ample machinery shed, with wooden or concrete floor, tight walls and a waterproof roof, is a very desirable addition to any farmstead, especially if it is equipped with a small repair shop where the machinery can be mended in comfort when necessary. As a measure of protection against fire, it should be located at some distance from the rest of the buildings.

ONCE THE FARM IMPLEMENTS have been housed in the machine shed, there will be time, during the slack season, to carry out a methodical routine of maintenance which will prove in the long run a very effective means of preventing serious losses of precious time in the field during the busy season.

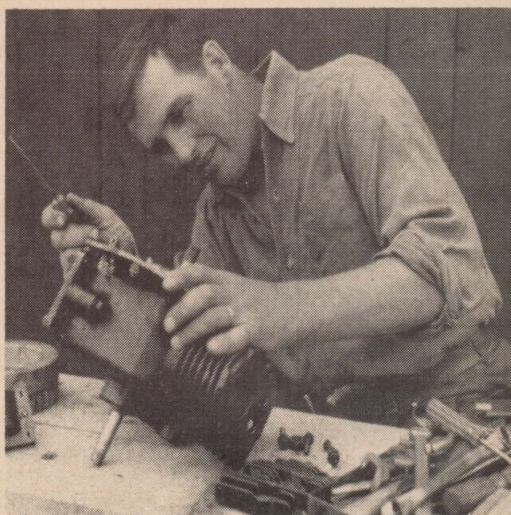
While the machinery is being cleaned by the removal of rust and dirt, incrustations of chemical fertilizers, limestone, oil and grease, etc., a sharp look-out should be kept for parts

which need repairing or replacing, or which show signs of wear. At the same time, those implements or parts which have suffered from exposure to the weather (or are likely to do so) should be protected by the application of paint, oil, grease, plastics or rust-proofing compounds, etc.

Finally, in connection with that handy source of power, the tractor, whether you intend to use it or not, it will pay you to take time and trouble to follow the manufacturer's advice as regards maintenance. In so doing, you will be giving the machine the care which it deserves and which is needed to maintain its performance and prolong its life.

In making provision for the housing of farm machinery, we must remember that we have a rigorous winter climate with a wide range of temperature.

Mr. H. L. Blais in the well-equipped repair shop of his farm at La Reine, Abitibi West, Que.



This page supplied in the interests of the Family Farm by the Quebec Department of Agriculture and Colonization.

Marie - Paule Saint-Jacques cuts roses in the garden of her father's farm at St. Pie, Bagot County, Que.



It's "Rose Care" Time!

MR DANIEL SEGUIN of the Horticulture Service of the Quebec Department of Agriculture and Colonization recommends that rose-growers take the first step towards protecting their plants from winter injury by treating them, during the growing season, so that they go into the winter in a healthy and hardened condition. Mature rose-trees run less risk of winter killing.

In this country, some kind of winter protection should be provided for most of the varieties of roses which are commonly grown, such as the hybrid tea and hybrid perpetuals, floribundas, polyanthas and climbers. The best time to set about doing this is usually between the end of October and the middle of November, after there have been a few hard frosts but before the ground has become too hard to dig. Winter injury of rose-trees is more likely to be due to loss of moisture caused by strong, drying winds and to alternate freezing and thawing than to severe cold alone.

The commonest way of providing adequate protection consists in heaping soil or sand round each rose bush to a height of twelve inches. When each individual plant has been protected by mounding in this way, and after the soil has frozen to a depth of at least an inch, the intervening hollows should be filled with dry leaves or straw. The soil is allowed to freeze in order to prevent destruction of the trees by mice which hide in the mulching material during the winter. The whole rose-bed may now be covered with branches of evergreens such as pine or spruce: these serve to hold the lighter material in place and to retain the snow which actually provides the best protection. While this is being done, care

must be taken not to lay bare the roots of the plants and to heap up the earth round the stems again if it has been washed away by the rain.

As an alternative to the procedure just described, Mr. Seguin recommends the following method which has given very good results in the colder parts of the province. Dig up the plants and lay them close together, root-down, in a well-drained trench about eighteen inches deep; then cover them up with a foot or a foot and a half of soil and, on top of this, heap dry leaves or some other material which will keep the rain out as much as possible.

In the case of climbing roses, after removing them from their support, tie the stems together. Take away a little soil from one side of the plant and bend the stems down till they lie on the ground. Finally, cover them up with soil, or with dry leaves and canvas or other waterproof material, or else with a water-tight box which may either be left empty or filled with dry leaves.

Any mulching materials used to protect the plants should keep the cold out without holding too much moisture in. The reason for this is that, if the stems of rose-trees are kept damp for too long, they are apt to grow mouldy. If pesticides are used to protect the plants, care must be taken to see that domestic animals cannot get at them.

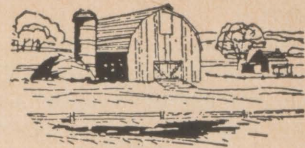
As soon as the weather begins to warm up in the spring and there is no further risk of killing frosts, the rose-trees should be uncovered gradually in such a way as to protect them from sudden exposure to the hot sun, especially if new buds have already started to form.

This page supplied in the interests of the Family Farm by the Quebec Department of Agriculture and Colonization.



The Better Impulse

NEWS AND VIEWS OF THE
WOMEN'S INSTITUTES OF QUEBEC



Delegates to the
ACWW
Convention at
Melbourne,
Australia pause
en-route to have
this group
portrait taken at
Tokyo
International
Airport in
Japan.
9th from right
is QWI 1st
vice-president
J. Ossington.
3rd from right
is G. McGibbon,
2nd v.p. of QWI.



Members of
Rouyn-Noranda
W.I. are shown
here modelling
the results of
a recent sewing
course.



Woman equal to man.....?

by Mrs. M. Corrigan,
Con. Citizenship P. Quebec.

The voice of women was a very weak one until suffrage was introduced.

A woman was once asked if she thought women should be equal to men? The reply was that it was preferred that women maintain their position as the superior sex. If this touchy question has been resolved, they have not made it public. Women have not been encouraged by men to take up politics. Maybe to make it more convenient to see to the comforts of men? As in former decades men do not wish intellectual assistance from the ladies. They are too smug regarding their opinions.

Women who are courageous enough to enter political life enter under great disadvantages. Are Canadian women accepting these disadvantages and the

responsibilities attendant on them? Are Canadians as a race accepting their responsibilities?

Canada's youth should aim for an education which will lead to a very inviting career either for male or female.

Many ideologies about women's place must be determined before women will be fully accepted as political leaders. It will take considerable time to make women feel comfortable outside their yesteryear destiny which was their home, and their most aggressive activity of church work. With this background, women are reluctant to get into public life. The sooner we break down all the fallacies of superiority and inferiority, the more quickly women will gain their rightful positions in all

avenues of service to humanity. Canadian women can hold responsible positions and control directly or indirectly much of the national wealth. They appear reluctant to enter public life, but we wonder if they could not do as well as the opposite sex? During the crucial foreign affairs debate in Canadian Parliament, only a fraction of the members were present. Was that showing a good Canadian spirit? When a crucial time came to the world, who protested strongly? — the Women of Canada.

The hand that rocks the cradle rules the world, but equally true, the hand that neglects the cradle, rocks the world.

M. Corrigan,
Con. Citizenship P. Quebec

FROM THE OFFICE

UNICEF literature for 'Shell-Out' was mailed to all branches Sept. 7. Keep track of amount collected for this and Xmas cards sold. Report on annual form to Mrs. Beattie in March. Also number of Xmas Stockings.

Thanks for information re seeds for School Fairs.

Pamphlets: Please, if at all possible, may we have the pamphlets back the meeting following the one when they were received. There is a long waiting list for some.

Correction: The history of the Indians of Notre Dame du Nord in a recent issue was written by two ladies from the Reserve, Mrs. Chas. McBride and Mrs. Andrew Polson for the Homemakers Convention of 1957 and transcribed by Miss Rivest for use in the Journal.

J. P. Coates leaflets on samplers have been purchased by the QWI and 3 have been sent in the monthly mailing to each branch.

La Terre — We are revising the list of those branches receiving La Terre.

If you wish more than one copy, please advise the QWI office of number desired.

Would the member who requested 500 QWI leaflets, please write again?

Mrs. Arthur Coates wishes to express her thanks to all those who answered her questionnaire with information for the Mosaic.

We are sorry to record the death of Miss Lucy Daley, Aug. 8th in Rawdon. Miss Lucy Daley founded the WI in Rawdon and was later Provincial Conv. of Welfare & Health. From the Rawdon WI President we have this comment, "Rawdon has lost a fine citizen and no words can do her many wonderful deeds of kindness nor her memory justice."

The McLennan Travelling Library at the College gave us about 1000 used books. Some of the children's books were sent to Notre Dame du Nord and the rest (all kinds) were shipped to the West Indies, to add to the work we are doing to help out extension projects in the different Islands. The Saguenay Shipping Co. took the books to Jamaica without charge, and an Island boat will distribute them — also

without charge — to other points, wherever they are most needed.

Some of the West Indian students have been mailing used books home themselves. Books of all kinds — including textbooks — are greatly needed.

Since the above books were sent we have received word from our National Conv. Mrs. Decker, that contact has been made with the Ranfurly Library of England who have done a great deal of this kind of work. If you have any new or used books in good condition, please contact the Montreal branch of the Ranfurly Library. Mrs. G. B. Aikman, 626 Clarke Ave., Westmount 6, Que. They have arrangements for free shipment and distribution.

Congratulations to us: Another new branch in Abitibi County at Val d'Or, which makes 3 for them and 2 for Temiskaming, as Winneway is functioning again.

Note from Bonaventure: The Bonaventure Co. W.I. School Fair Committee is very grateful for all the spoils they have received and now have enough on hand to supply their needs. A sincere thank-you to all W.I. branches who co-operated in this project."

THE MONTH WITH THE W.I.

BIG NEWS THIS MONTH concerns the "Christmas Stockings" — as usual the Q.W.I. rallied to this project, and it will be interesting to hear just how many stockings were filled and sent in.

ARGENTEUIL :

Arundel went bowling and out to supper afterwards. A bazaar was held and box lunches were served at the Quebec Shorthorn Association's Field Day. **Brownsburg** had a talk on Activities of a Health Unit given by Col. Emmett, Inspector of Health for the County. **Dalesville-Louisa** had a visit from the County president and completed a Glove and Slipper-making course. **Lakefield** held a food sale and **Pioneer** saw films of local interest and scenery. **Upper Lachute-East End** heard about the value of food in a talk given by Dr. Middleton of Lachute, and Mr. Fred Royal, principal of the High School gave his views on Teen-agers of today in an interesting talk.

BONAVENTURE :

Matapedia enjoyed a beach party, and **Port Daniel** held a display of handicrafts. Friends were invited to a dinner party to celebrate the 40th Anniversary of this branch. Mrs. C. Dow — a charter member was presented with a corsage. **Restigouche** also celebrated an Anniversary — their 15th — it was also the birthday of the 1st president of the branch, so she was suitably presented with a corsage.

CHATEAUGUAY-HUNTINGDON :

Aubrey-Riverfield entertained Mrs. Middlemiss, the County president, and Dundee held their meeting in the

home of a member in the U.S.A.! **Hemmingford** read letters from pen-pays in Taipei, Tai Wan — China. A successful School Fair was held with an increase of entries and members assisted at a Red Cross Blood Donor Clinic.

Huntingdon had an interesting talk on "Huntingdon Valley" by Stanley Currie who showed a quilt made in Scotland around 1800. **Ormstown** had a visit from Mrs. Ellard, Prov. President who spoke of work to be done in the W.I. Mrs. Archie Marshall won the prize for the best salad plate — judged by the Home Ec. teacher, Mrs. Grant. A Life Membership was given to Mrs. Adam McNeil.



Members of the Cowansville W.I. were recent guests of Stanbridge East W.I. The ladies lined up for the above photo to mark the occasion.

GATINEAU :

Aylmer East entertained the grandmothers at a picnic. **Eardley** enjoyed a talk by Mrs. W. J. Fuller on her trip to St. George, Ont., where she attended the unveiling of the plaque at the Adelaide Hoodless Home. **Lower Eardley** exhibited articles to be shown at the Fair. **Rupert** report a good sum raised at a "Fun Night" and **Wright** presented the grandmothers with corsages and answered the roll call with details of their wedding — complete with pictures. Mrs. Fred Downey told of her trip to the World Fair at Seattle.

JACQUES CARTIER :

Ste. Anne de Bellevue had an auction of summer work, and their guest speaker was Prof. Jones of Macdonald College who described his trip to the Barren Lands of Canada.

MEGANTIC :

Inverness answered the roll call by naming one of their own weaknesses! **Kinnear's Mills** discussed the prize list for the school fair.

MISSISQUOI :

Cowansville had a talk on ARDA given by Mrs. W. D. Smith, and a discussion on the Report on Education conducted by Mrs. McClatchie. **Fordyce** held a contest on "Impressions of a Supermarket Shopper," and discussed advertising slogans on radio and T.V.

MONTCALM :

Rawdon sold a record number of tickets for drawings on a rug and Corning Ware with proceeds going to the Dental Clinic. They report that the Dr. Lewton Smiley Memorial Scholarship is to be given to Sandra Oswald. A successful Tea and Sale were held.

PAPINEAU :

Lochaber had a Spelling Match conducted by their Education convener. Information to be used in the Mosaic has been collected and sent in.

PONTIAC :

Beechgrove enjoyed slides shown by Mrs. Doris McKenney, of Florida and some taken closer to home, which made members realize that they have many beautiful spots right in their own County.

Elmside sponsored a Lunch Room at Shawville Fair, their discussion was on ways to raise money. **Quyón** helped to organize a Testimonial Dinner for a local doctor. A paper was read by Mrs. Fred Fraser on Preparing and Serving A Community Dinner. A cookie contest was won by Mrs. Harriet Burke. **Stark's Corners** had three contests — on sewing a seam; on making as many words as possible out of "Grandmother" and on remembering objects.

Wyman enjoyed slides of Vancouver, Cincinnati and local scenes. The roll call was answered with wash clothes for the Shawville Hospital. UNICEF greeting cards were displayed.

ROUVILLE :

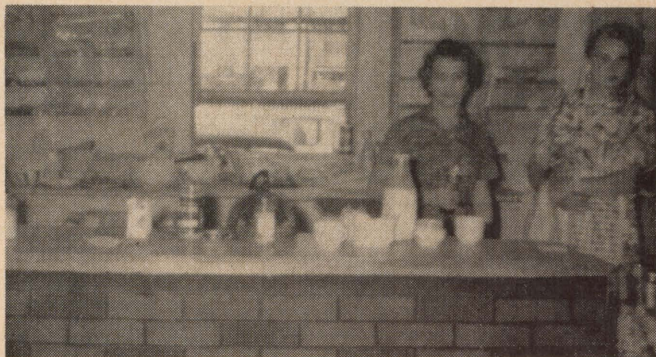
Abbotsford saw movies shown by Mr. Brodeur, director of the community playground. Mr. Hamilton Marshall, until recently with the Dept. of Agriculture, gave a talk on his visit to the United Kingdom to learn how to improve on the quality of apples. Two bursaries were given to students furthering their education.

RICHMOND :

Cleveland had a begonia contest with prizes going to Mrs. Osborne and Miss Stamp. **Denison Mills** had a publicity quiz and a food sale. **Gore** had an Apple Pie contest which was won by Mrs. M. Hughes. Dinners are to be served at a Ploughing Match. **Melbourne Ridge** took

a day off and toured the Dominion Textile Mill at Magog. Miss Dresser was a guest at the meeting and she spoke on the Historical Society. A reading was given from the Education Brief. **Richmond Hill** are to give prizes for spelling in Grade 3 at the High School. **Shipton** are to hold a series of card parties. **Spooner Pond** had a contest to see how many articles in a large paper bag they could remember. They were given 20 seconds to feel the articles, and the winner was Mrs. O. Taylor. **Richmond Young Women** exhibited their oldest possessions for roll call, and these included dishes, cups, coins etc. Mrs. Sylvia Crack, Education convener conducted two contests which were won by Mrs. B. Grainger and Mrs. M. Jameson.

This County held a contest for embroidered pillowcases at the Richmond Fair. 1st prize was won by Mrs. Coddington of Spooner Pond, and 2nd prize by Mrs. G. Johnston of Melbourne Ridge.



Melbourne Ridge W.I. members ran a refreshment booth at the recent Richmond County Fair. Pictured are Mrs. O. Wilkins and Mrs. W. Marshall.



The ladies of Beebe W.I. gathered to celebrate their 40th anniversary with a birthday cake to mark the occasion.



Members of Abercorn W.I. pose with the fan quilt that won first prize for them at the Brome County Annual Convention. Other winners were: 2nd. South Bolton's Swans; 3rd. Sutton's Umbrella Girls.



The Stanstead W.I. rest room for mothers and children at the Stanstead County Fair always proves a great boon to weary mothers and older people attending the Fair.



At a recent Megantic County meeting the ladies of the Kinnear's Mills and Iverness W.I. groups posed for this photo.

SHEFFORD :

Granby Hill heard a resume of the Brief on Education, and sent a donation to the Cecil Memorial Home. **Granby West** report a new member, and a visit from the County president. **Waterloo-Warden** presented prizes at the school opening, and also sent a donation to the Cecil Memorial Home.

SHERBROOKE :

Ascot discussed the naming of rural roads to benefit strangers travelling in the area. A new member was welcomed and a visit paid to a local home for Senior Citizens. **Brompton Road** entertained members of the Lennoxville branch. Articles were read on the use of fire-arms and common sense. **Milby** entertained Belvedere and Lennoxville branches. A gift was given to a new bride in the community, and a quiz held on W.I. work.

STANSTEAD :

Ayers Cliff brought in pot holders for their roll call, and these were later auctioned very capably by Mrs. Wait. **Beebe** attended a "Benefit Tea" for a hospital, and sponsored a drive to collect used clothing for a family who lost their home by fire. **Hatley** held a paper drive, and their Agriculture convener visited the School Fair gardens. **Ways Mills** studied reports on the drug thalidomide, followed by a discussion as to care and responsibility. A talk on Australia was given by Mrs. Duff.



Mrs. W. Youngie, Ormstown, (3rd from left) Class of 1912, returned to Macdonald College to take the leadership course.

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The Richmond County booth at the Richmond Fair. Shown are Mrs. E. Stimson, County Convener of Agriculture, Mrs. J. Levitt and Mrs. K. Beattie.

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